APPENDIX TABLE 7-37 III

Public assessment of the benefits and harms of nanotechnology, by respondent characteristic: 2006, 2008, 2010, 2016

(Percent and mean score)

| Characteristic | | 2006 | | | | 2008 | | | 2010 | | | 2016 | | | | |
|----------------------------------------------------------------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|------------|
| | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Doi kno |
| All adults (<i>n</i> = 1,864; 2,021; 963; 911) | 40 | 19 | 9 | 32 | 39 | 13 | 9 | 40 | 37 | 9 | 11 | 43 | 50 | 10 | 18 | |
| Sex | | | | | | | | | | | | | | | | |
| Male (<i>n</i> = 804; 918; 397; 399) | 49 | 18 | 8 | 24 | 46 | 12 | 10 | 32 | 45 | 10 | 9 | 36 | 61 | 10 | 16 | |
| Female (<i>n</i> = 1,060; 1,103; 566; 512) | 33 | 20 | 9 | 39 | 32 | 14 | 8 | 46 | 30 | 9 | 11 | 50 | 41 | 11 | 19 | |
| Formal education ^a | | , | | | | | | | | , | , | | | | | |
| Less than high school diploma (<i>n</i> = 227; 283; 119; 112) | 14 | 28 | 15 | 43 | 18 | 16 | 18 | 47 | 22 | 13 | 9 | 56 | 33 | 18 | 27 | |
| High school diploma (<i>n</i> = 507; 632; 296; 260) | 34 | 19 | 11 | 37 | 36 | 13 | 9 | 42 | 26 | 14 | 19 | 41 | 44 | 15 | 18 | |
| Some college (<i>n</i> = 607; 550; 243; 258) | 41 | 19 | 9 | 32 | 41 | 13 | 8 | 38 | 41 | 8 | 7 | 44 | 52 | 7 | 22 | |

| | 2006 | | | | | 2008 | | | 2010 | | 2016 | | | | | |
|------------------------------------------------------------------|-----------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|------------|
| Characteristic | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Dor kno |
| Bachelor's degree (<i>n</i> = 346; 356; 205; 175) | 52 | 17 | 4 | 27 | 49 | 10 | 5 | 36 | 49 | 4 | 4 | 43 | 60 | 7 | 12 | |
| Graduate or professional degree (<i>n</i> = 176; 200; 100; 104) | 63 | 14 | 2 | 22 | 53 | 13 | 1 | 32 | 53 | 6 | 7 | 34 | 65 | 6 | 7 | |
| cience and mathematics e | ducation ^b | | | | | | | | | | | | | | | |
| Low (<i>n</i> = 1,050; 1,199; 236; 500) | 29 | 22 | 11 | 39 | 31 | 14 | 11 | 45 | 30 | 14 | 11 | 46 | 43 | 12 | 20 | |
| Middle (<i>n</i> = 354; 340; 130; 180) | 49 | 19 | 8 | 24 | 47 | 14 | 8 | 31 | 43 | 8 | 7 | 42 | 55 | 9 | 16 | |
| High (<i>n</i> = 390; 395; 103; 179) | 63 | 13 | 3 | 21 | 60 | 11 | 3 | 27 | 55 | 5 | 2 | 38 | 71 | 9 | 8 | |
| amily income (quartile) ^a | · | , | | , | ' | | | | | | | | | | | |
| Bottom (<i>n</i> = NA; NA; NA; 212) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 42 | 11 | 26 | |
| Third (<i>n</i> = NA; NA; NA; 184) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 47 | 13 | 19 | |
| Second (<i>n</i> = NA; NA; NA; 222) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 53 | 10 | 16 | |

| | | 2006 | | | 2008 | | | 2010 | | 2016 | | | | | | |
|-------------------------------------------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|
| Characteristic | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know |
| Top (<i>n</i> = NA; NA; NA; 211) | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 62 | 8 | 13 | 17 |
| Age (years) ^a | | | | | | | | | | | | | | | | |
| 18–24 (<i>n</i> = 157; 173; 53; 59) | 45 | 22 | 13 | 20 | 44 | 20 | 14 | 23 | 32 | 18 | 18 | 32 | 67 | 12 | 18 | 4 |
| 25–34 (<i>n</i> = 341; 346; 179; 160) | 41 | 20 | 9 | 30 | 41 | 15 | 9 | 35 | 41 | 14 | 7 | 38 | 60 | 10 | 12 | 19 |
| 35-44 (<i>n</i> = 382; 377; 165; 135) | 38 | 23 | 5 | 34 | 38 | 14 | 9 | 39 | 40 | 7 | 15 | 38 | 41 | 12 | 24 | 23 |
| 45–54 (<i>n</i> = 386; 421; 183; 158) | 44 | 16 | 10 | 30 | 38 | 14 | 7 | 41 | 43 | 8 | 6 | 43 | 49 | 10 | 21 | 20 |
| 55–64 (<i>n</i> = 272; 335; 173; 168) | 41 | 17 | 9 | 33 | 44 | 10 | 7 | 39 | 35 | 6 | 13 | 46 | 50 | 14 | 19 | 17 |
| 65 or older (<i>n</i> = 321; 354; 204; 228) | 30 | 16 | 7 | 47 | 29 | 6 | 7 | 58 | 28 | 7 | 7 | 58 | 44 | 7 | 15 | 34 |
| Trend factual knowledge of | science scale | (quartile) ^C | | | | | | | | | | | | | | |
| Bottom (<i>n</i> = 351; 375; 202; 168) | 13 | 24 | 13 | 50 | 20 | 8 | 12 | 60 | 14 | 8 | 20 | 58 | 29 | 16 | 24 | 31 |
| Third (<i>n</i> = 489; 521; 223; 241) | 26 | 19 | 13 | 41 | 28 | 14 | 12 | 46 | 30 | 11 | 8 | 51 | 45 | 12 | 22 | 21 |

| Characteristic | 2006 | | | | 2008 | | | | | 2010 | | | 2016 | | | | |
|-----------------------------------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|---------------------|--------------------------------------|-------------------------------|---------------|--|
| | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | Benefits greater | Benefits and harms about equal | Harmful results greater | Don't know | |
| Second (<i>n</i> = 545; 566; 290; 296) | 45 | 22 | 7 | 26 | 38 | 16 | 8 | 39 | 42 | 9 | 10 | 38 | 52 | 8 | 18 | 22 | |
| Top (<i>n</i> = 479; 559; 248; 206) | 64 | 13 | 2 | 21 | 61 | 12 | 5 | 22 | 54 | 9 | 5 | 31 | 72 | 8 | 8 | 13 | |

NA = not available; question was not asked.

Note(s)

Data represent responses to the question Nanotechnology works at the molecular level atom by atom to build new structures, materials, and machines. People have frequently noted that new technologies have produced both benefits and harmful results. Do you think the benefits of nanotechnology will outweigh the harmful results or the harmful results will outweigh the benefits? Percentages may not add to 100% because of rounding.

Source(s)

NORC at the University of Chicago, General Social Survey (2006–16).

Science and Engineering Indicators 2018

^a For science and mathematics education, "low" equates to five or fewer high school and college science or mathematics courses, "middle" is six through eight courses, and "high" means nine or more courses. Categories do not add to total *n* because "don't know" responses and refusals to respond are not shown.

^b Categories do not add to total *n* because "don't know" responses and refusals to respond are not shown.

^c See notes to Appendix Table 7-2 for an explanation of the trend factual knowledge of science scale.